

REMARKS

Applicants reply to the Office Action dated on September 30, 2011, within three months. Claims 1-15, 18-24, 26-31 and 44-46 are pending, and claims 32-43 and 47-72 have been withdrawn from consideration. The Examiner rejects claims 1-15, 18-24, 26-31 and 44-46. Support for the amendments may be found in the originally-filed specification, claims, and figures. For example, support for the amendments can be found on page 80, lines 32-33 of the corresponding WO2005/042730A2. No new matter is entered with these amendments. Applicants respectfully request reconsideration of this application.

The Examiner rejects claims 1-15, 18-24, 26-31 and 44-46 under 35 USC 103(a) as being obvious in view of Pitt and Arteccl. Applicants respectfully disagree, but to expedite prosecution, Applicants amend certain claims. Moreover, Applicants assert that the Examiner has not established a prima facie case of obviousness.

The Examiner asserts that Pitt teaches a method of preparing a stem cell by taking a lipoaspirate sample, treating the sample with collagenase and centrifuging the sample multiple times to separate the cells from other cells including erythrocytes. The Examiner further asserts that Arteccl teaches a method of preparing a stem cell by taking a lipoaspirate sample and centrifuging the sample using a density gradient medium Ficoll or Percoll to separate the cells from other cells including erythrocytes.

Additionally, the Examiner alleges that Arteccl does not require the use of collagenase, and thus the prior art does not teach that collagenase treatment is required in order to separate stem cells from a lipoaspirate sample. Therefore, it appears that the Examiner has not accepted Applicants previous arguments regarding the exclusion of collagenase treatment.

Importantly, Applicants assert that the description in Arteccl indicated by the Examiner (paragraph bridging pages 11-12) actually describes that at least some type of enzyme treatment is used to isolate adipose tissue derived cells, such as collagenase, trypsin, dispase, hyaluronidase or DNase. Further, Pitt provides two particular examples of methods for isolating human lipo-derived stem cells substantially free of mature adipocytes.

Specifically, Example 1 on page 17, lines 24-27 of WO00/53795 describes *"Isolated tissue was rinsed thoroughly with neutral phosphate buffered saline and then enzymatically dissociated with 0.075%w/v collagenase at 37°C..."*. Example 6 on page 21 of WO00/53795 describes: *"In one protocol withheld supernatant from Example 1 was subjected to enzymatic digestion for three days in 0.05% trypsin EDTA/100U/mL deoxyribonuclease to destroy the cells. (...) Thereafter the material was rinsed in saline and resuspended in 0.05% collagenase and about 0.1% lipase to partially digest the proteins and fat present."*

The amended claims now specify methods without enzyme treatment. Thus, Applicants strongly assert that the amended claims attain significant effects that could not have been expected even in view the disclosures of Pitt and Artecel, alone or in combination. Specifically, Applicants strongly assert that page 81, lines 1-4 of WO2005/042730 describes that the methods of the claimed invention (i.e.: without using enzymes, such as collagenase treatment) are distinct from conventional methods and stem cells from fat tissue prepared by conventional methods in that there is no contamination of enzymes such as collagenase. Additionally (as indicated in Example 3, page 86, lines 15-19 of WO2005/042730), Applicants strongly assert stem cells prepared by using the method of the claimed invention (i.e.: without enzyme treatment), can be easily and efficiently differentiated into vascular endothelium (vascularization).

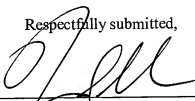
Significantly, Applicants assert that the method of the claimed invention, whereby the use of enzyme treatment is omitted, results in an improved yield of a population of surprisingly good quality, homogenous, adipose-derived stem cells. Further, Applicants assert that the method of the claims as amended is simple and works in a surprisingly efficient manner as compared to conventional techniques, whereby the use of enzyme treatment is required to separate fat tissue from the starting liposuction material.

Moreover, Applicants strongly assert that those skilled in the art (even in view of the disclosures of Pitt and Artecel) would not have been motivated to conceive of the method of the claimed invention which excludes any type of enzyme treatment. Applicants assert that the claimed invention is therefore novel and inventive in view of the disclosure of Pitt and Artecel.

Dependent claims 2-13, 15, 18-21, 23-24, 26-31 and 44-46 variously depend from 1, 14 and 22, so Applicants assert that dependent claims 2-13, 15, 18-21, 23-24, 26-31 and 44-46 are differentiated from the cited references for the same reasons as set forth above, in addition to their own respective features.

Applicants respectfully submit that the pending claims are in condition for allowance. The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **19-2814**. Applicants invite the Examiner to telephone the undersigned, if the Examiner has any questions regarding this Reply or the present application in general.

Respectfully submitted,



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By: _____

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